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**EQUIPMENT HEALTH MONITORING**  
**ARCHITECTURE FOR FLEETS OF ASSETS**

**ABSTRACT OF THE DISCLOSURE**

A system and method for use in monitoring equipment condition employs an empirical model, a rules engine, incident generation and resolution logic, a display interface, and a messaging capability for interacting with other systems. The empirical model uses similarity-based modeling to generate equipment instantiation-specific models with high fidelity. Residuals are generated by comparison of model estimates with actual current parameters, and rules are used to identify diagnostic incidents from patterns in the residuals, actual values, estimates, and alerts on residuals.